Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-30 (cancelled)

31. (previously presented) A semiconductor device comprising a resistive element, wherein the resistive element comprises: a bottom metal layer; an insulating barrier layer positioned over the bottom metal layer; and a non-magnetic metal layer positioned over and in direct contact with the insulating barrier layer.

32. (currently amended) The semiconductor device of claim 31, wherein the resistive element further comprises a protective cap layer positioned over the non-magnetic metal layer.

33. (previously presented) The semiconductor device of claim 31 wherein the barrier layer is less than approximately two nanometers in thickness.

34. (previously presented) The semiconductor device of claim 31 wherein the barrier layer has been at least partially oxidized.

35. (currently amended) The semiconductor device of claim 31 wherein the resistive element comprises a smoothing layer of Ta positioned over ~~said base~~ the bottom metal layer.

36. (currently amended) The semiconductor device of claim 31 wherein the ~~base~~ the bottom metal layer further comprises TaN.

37. (previously presented) The semiconductor device of claim 31 wherein the resistive element comprises a seed layer comprising CoFe.

38. (previously presented) The semiconductor device of claim 31 wherein the resistive element comprises a smoothing layer of Ta upon which the barrier layer is deposited.

39. (previously presented) The semiconductor device of claim 31 wherein the resistive element comprises a bottom electrode comprising TaN.

40. (cancelled)

41. (previously presented) The semiconductor device of claim 31 wherein the resistive element comprises a top electrode further comprising at least one of Al and TaN.

42. (previously presented) The semiconductor device of claim 32, wherein the protective cap layer comprises TaN.

43. (new) A semiconductor device comprising:

a resistive element less than approximately two nanometers in thickness, wherein the resistive element comprises:

a bottom metal layer comprising TaN;

an at least partially oxidized insulating barrier layer positioned over the bottom metal layer; and

a non-magnetic metal layer positioned over and in direct contact with the insulating barrier layer;

a protective cap layer positioned over the non-magnetic metal layer wherein the protective cap layer comprises TaN.